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**REMARKS**

Claims 1-12 were pending in the present application. Claims 1-12 have been cancelled, without prejudice, and new claims 27-40 have been added. Accordingly, claims 27-40 will remain pending after the amendments presented herein have been entered. *Applicant submits that all of the pending claims are directed to the elected invention.* For the Examiner's convenience all of the pending claims are set forth in Appendix A.

Support for the newly added claims can be found throughout the specification including the originally filed claims. Specifically, support for new claims 27-37 can be found at page 37, line 8 through page 39, line 28 of the specification. Support for new claim 38 can be found at page 15, lines 3-5 of the specification. Support for new claim 39 can be found at page 15, lines 21-22 of the specification. Finally, support for new claim 40 can be found at page 63, lines 4-10 of the specification.

Attached hereto is a marked-up version of the changes made to the specification by the current amendments. The attached page is captioned "Version With Markings to Show Changes Made".

No new matter has been added. Any amendments to and/or cancellation of the claims should in no way be construed as an acquiescence to any of the Examiner's rejections and was done solely to expedite the prosecution of the application. Applicant reserves the right to pursue the claims as originally filed in this or a separate application(s).

**RESPONSE TO RESTRICTION REQUIREMENT**

Under 35 U.S.C. §121, the Examiner has required restriction to one of the following inventions:

Group I: claims 1-12 (drawn to isolated DNA molecules encoding human CSPK-1, vectors and host cells comprising said DNA molecules and methods of expressing said molecules);

Group II: claims 1-12 (drawn to isolated DNA molecules encoding human CSPK-2, vectors and host cells comprising said DNA molecules and methods of expressing said molecules);

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Group III: claims 1-12 (drawn to isolated DNA molecules encoding human CSPK-3, vectors and host cells comprising said DNA molecules and methods of expressing said molecules);

Group IV: claims 1-12 (drawn to isolated DNA molecules encoding human CSPK-4, vectors and host cells comprising said DNA molecules and methods of expressing said molecules);

Group V: claims 1-12 (drawn to isolated DNA molecules encoding human CSPK-5, vectors and host cells comprising said DNA molecules and methods of expressing said molecules);

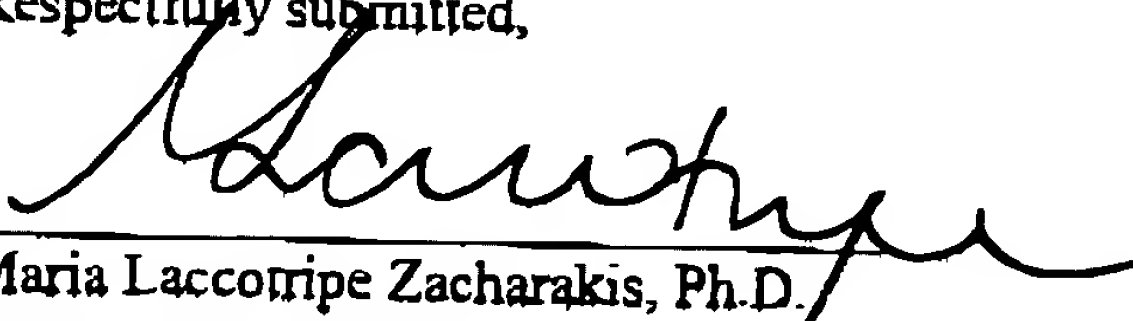
*In lieu of* electing one of the inventions set forth in Groups I-V, Applicant hereby elects claims 27-40 (directed to antibodies that bind CSAPK-2), without traverse, for prosecution in this application.

Applicants reserve the right to traverse the restriction between the non-elected groups in this or a separate application.

### CONCLUSION

If a telephone conversation with Applicant's attorney would help expedite the prosecution of the above-identified application, the Examiner is urged to call Applicant's attorney at (617) 227-7400.

Respectfully submitted,



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Limited Recognition Under 37 C.F.R. §10.9(b)

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Dated: April 17, 2003

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

At page 14, lines 7-14:

— The nucleotide sequence of the isolated human CSAPK-1 cDNA and the predicted amino acid sequence of the human CSAPK-1 polypeptide are shown in Figure 1 and in SEQ ID NOs:1 and 2, respectively. A plasmid containing the nucleotide sequence encoding human CSAPK-1 was deposited with American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998 and assigned Accession Number 203308. This deposit will be maintained under the terms of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure. This deposit was made merely as a convenience for those of skill in the art and is not an admission that a deposit is required under 35 U.S.C. §112. --

At page 16, lines 7-15:

--The nucleotide sequence of the isolated human CSAPK-2 cDNA and the predicted amino acid sequence of the human CSAPK-2 polypeptide are shown in Figure 2 and in SEQ ID NOs:4 and 5, respectively. A plasmid containing the nucleotide sequence encoding human CSAPK-2 was deposited with American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998 and assigned Accession Number 203306. This deposit will be maintained under the terms of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure. This deposit was made merely as a convenience for those of skill in the art and is not an admission that a deposit is required under 35 U.S.C. §112. --

At page 17, lines 10-18:

—The nucleotide sequence of the isolated human CSAPK-3 cDNA and the predicted amino acid sequence of the human CSAPK-3 polypeptide are shown in Figure 3 and in SEQ ID NOs:7 and 8, respectively. A plasmid containing the nucleotide sequence encoding human CSAPK-3 was deposited with American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998 and assigned Accession Number 203309. This deposit will be maintained under the terms of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure. This deposit was made merely as a convenience for those of skill in the art and is not an admission that a deposit is required under 35 U.S.C. §112. --

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At page 18, lines 12-20:

--The nucleotide sequence of the isolated human CSAPK-4 cDNA and the predicted amino acid sequence of the human CSAPK-4 polypeptide are shown in Figure 4 and in SEQ ID NOs:10 and 11, respectively. A plasmid containing the nucleotide sequence encoding human CSAPK-4 was deposited with American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998 and assigned Accession Number 203307. This deposit will be maintained under the terms of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure. This deposit was made merely as a convenience for those of skill in the art and is not an admission that a deposit is required under 35 U.S.C. §112. --

At page 19, lines 15-23:

--The nucleotide sequence of the isolated human CSAPK-5 cDNA and the predicted amino acid sequence of the human CSAPK-5 polypeptide are shown in Figure 5 and in SEQ ID NOs:13 and 14, respectively. A plasmid containing the nucleotide sequence encoding human CSAPK-1 was deposited with American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998 and assigned Accession Number 203305. This deposit will be maintained under the terms of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure. This deposit was made merely as a convenience for those of skill in the art and is not an admission that a deposit is required under 35 U.S.C. §112. --

At page 76, lines 2-35:

--The sequences of the positive clones were determined and found to contain open reading frames. The nucleotide sequence encoding the human CSAPK-1 protein is shown in Figure 1 and is set forth as SEQ ID NO:1. The protein encoded by this nucleic acid comprises about 302 amino acids and has the amino acid sequence shown in Figure 1 and set forth as SEQ ID NO:2. The coding region (open reading frame) of SEQ ID NO:1 is set forth as SEQ ID NO:3. The clone comprising the entire coding region of human CSAPK-1 was deposited with the American Type Culture Collection (ATCC®), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998, 1998, and assigned Accession No. 203308.

The nucleotide sequence encoding the human CSAPK-2 protein is shown in Figure 2 and is set forth as SEQ ID NO:4. The protein encoded by this nucleic acid comprises about 455 amino acids and has the amino acid sequence shown in Figure 2 and set forth as SEQ ID NO:5. The coding region (open reading frame) of SEQ ID NO:4 is set forth as SEQ ID NO:6. The

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clone comprising the entire coding region of human CSAPK-2 was deposited with the American Type Culture Collection (ATCC®), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998, 1998, and assigned Accession No. 203306.

The nucleotide sequence encoding the human CSAPK-3 protein is shown in Figure 3 and is set forth as SEQ ID NO:7. The protein encoded by this nucleic acid comprises about 581 amino acids and has the amino acid sequence shown in Figure 3 and set forth as SEQ ID NO:8. The coding region (open reading frame) of SEQ ID NO:7 is set forth as SEQ ID NO:9. The clone comprising the entire coding region of human CSAPK-3 was deposited with the American Type Culture Collection (ATCC®), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998, 1998, and assigned Accession No. 203309.

The nucleotide sequence encoding the human CSAPK-4 protein is shown in Figure 4 and is set forth as SEQ ID NO:10. The protein encoded by this nucleic acid comprises about 160 amino acids and has the amino acid sequence shown in Figure 4 and set forth as SEQ ID NO:11. The coding region (open reading frame) of SEQ ID NO:10 is set forth as SEQ ID NO:12. The clone comprising the entire coding region of human CSAPK-4 was deposited with the American Type Culture Collection (ATCC®), 10801 University Boulevard, Manassas, VA 20110-2209, on October 27, 1998, 1998, and assigned Accession No. 203307. --

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**APPENDIX A**

27. (New) An isolated antibody, or portion thereof, that specifically binds to a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:5 or a fragment thereof.

28. (New) An isolated antibody, or portion thereof, that specifically binds to a polypeptide encoded by the nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:4 or 6, or a fragment thereof.

29. (New) An isolated antibody, or portion thereof, that specifically binds to a polypeptide encoded by a nucleic acid molecule comprising the nucleotide sequence contained in the plasmid deposited with the ATCC as Accession number 203306, or a fragment thereof.

30. (New) The antibody of any one of claims 27, 28 or 29, wherein said antibody is monoclonal.

31. (New) The antibody of any one of claims 27, 28 or 29, wherein said antibody is polyclonal.

32. (New) The antibody of any one of claims 27, 28 or 29, wherein said antibody is a humanized antibody.

33. (New) The antibody of any one of claims 27, 28 or 29, wherein said antibody is a chimeric antibody.

34. (New) The antibody of any one of claims 27, 28 or 29, wherein said antibody comprises a F(ab) fragment.

35. (New) The antibody of any one of claims 27, 28 or 29, wherein said antibody comprises a F(ab')<sub>2</sub> fragment.

36. (New) The antibody of any one of claims 27, 28 or 29, wherein said antibody is a human antibody.

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37. (New) The antibody of any one of claims 27, 28 or 29, wherein said antibody is a murine antibody.

38. (New) The antibody of any one of claims 27, 28, or 29, wherein said antibody binds to a fragment of said polypeptide comprising amino acid residues 31-277 or SEQ ID NO:5.

39. (New) The antibody of any one of claims 27, 28, or 29, wherein said antibody binds to a fragment of said polypeptide comprising amino acid residues 407-421 or SEQ ID NO:5.

40. (New) The antibody of any one of claims 27, 28, or 29, further comprising a label.